



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

col

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/989,265

11/20/2001

Man Kuk Lo

SC1000AH

2987

23125

7590

12/13/2005

FREESCALE SEMICONDUCTOR, INC.
LAW DEPARTMENT
7700 WEST PARMER LANE MD:TX32/PL02
AUSTIN, TX 78729

EXAMINER

SEFCHECK, GREGORY B

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,265

Applicant(s)

LO ET AL.

Examiner

Gregory B. Sefcheck

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Levay et al. (US006480892B1), hereafter Levay.

- In regards to Claims 1-9,

Levay discloses an apparatus and method for processing IP/RTP packets (Abstract; Figs. 1, 3, and 7; claim 1,5 – Real Time Protocol packet handler; claim 7 – method of processing RTP packets).

Referring to Fig. 1, Levay discloses apparatus 12 comprising network interfaces 20-22 that receives IP packets from an Ethernet communication medium (Col. 2, lines 43-67; claim 7 – receiving IP packets via a communication medium; claim 2 – medium comprises Ethernet).

Received packets at the network interfaces 20-22 are communicated to packet filter 24 using a protocol stack implemented through software stored in a memory, inherently executed by a processor, and running on a conventional operating system,

such as UNIX (Col. 3, lines 8-28; claim 1,5 – processor coupled to communications medium for receiving IP packets; claim 1,5 – processing unit connected to processor having operating system software executing to control operation thereof).

Referring to Fig. 2, packet filter 24 includes header analyzer 82, which examines the packet header to determine if the packet contains real-time data and compares the header to previously stored header entries in a lookup table 86. If the current packet header matches a previously stored entry, an RTP packet is detected (Fig. 7; Col. 3, lines 35-43; Col. 4, lines 17-30 and 32-48; claim 1 – means for examining the received packets and headers to detect RTP packets; claim 3,5 – means for examining comprises a lookup table for storing RTP packet headers; claim 5 – comparator for comparing current IP packet header with IP packet headers in lookup table, when the current IP header matches one of the stored headers, a RTP is detected; claim 7 – detecting an RTP packet by examining a header of the IP packet; claim 9 – detecting step examines the IP packet by comparing the packet header with header values prestored in a lookup table).

If the packet is determined to be an RTP packet, packet filter 24 performs processing steps by making function calls (microcode routine) to access services of the RTP layer (Fig. 7; claim 1,5 – RTP packet handler module executing on processor for processing detected RTP packets; claim 4,6 – RTP packet handler module comprises a microcode routine; claim 7 – redirecting the IP packet to an RTP handler module based on the detecting step results when the IP packet is a RTP packet; processing the

redirected RTP packet with the RTP handler module, wherein the RTP handler module operates on a protocol processor and an operating system operates on the processor).

Packets determined not to contain real-time data and/or determined not to be RTP packets are processed through different routine(s) functioning on the apparatus' operating system (Col. 4, lines 29-31 and 43-45; claim 1,5 – non-RTP packets processed by the OS software; claim 8 – directing the IP packet to an operating system packet handling routine when the packet is not an RTP packet).

- In regards to Claims 11 and 12,

Levay discloses an apparatus and method for processing IP/RTP packets that covers all limitations of the parent claim.

After an RTP packet is detected, Levay shows that processing is performed according to a rules table, implemented as a called software function (software upper layer) relying on stored data indicating which packets in a sequence should be discarded (Col. 4, lines 48-53; claim 12 – processing step includes dispatching the sorted RTP packets to a software upper layer).

Levay shows that the processing of multiple detected RTP packets includes controlling the varying pattern of packet loss by sorting the packets by sequence number (Fig. 4; Col. 4, line 54-Col. 5, line 14; claim 11 – processing step includes sorting multiple detected RTP packets according to their packet sequence numbers).

- In regards to Claim 13,

Levay discloses an apparatus and method for processing IP/RTP packets that covers all limitations of the parent claim.

Referring to Fig. 3, Levay shows that the forwarding of RTP packets includes encapsulating the payload data with various headers as it passes through the protocol layers of the protocol stack, used for communicating a forwarded RTP packet from the packet filter 24 to the network interface 20-22 (Col. 3, lines 8-10 and 44-52; claim 13 – RTP handler module building RTP packets and transmitting the built RTP packets over the communication medium).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Levay in view of Leon et al. (US 20020083205A1), hereafter Leon.

- In regards to Claim 10,

Levay discloses an apparatus and method for processing IP/RTP packets that covers all limitations of the parent claim.

Levay does not explicitly show copying a detected RTP packet to a backup buffer.

Leon discloses an apparatus and method for processing of RTP packet headers. Leon discloses that packets are copied to a buffer in order to determine the pattern of the received RTP packets belonging to the same sequence, to enable subsequent processing of the packets (Pg. 2, paragraph 40; claim 10 – copying a detected RTP packet to a backup buffer).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus and method of Levay by copying detected RTP packets to a backup buffer, as shown by Leon, thus allowing the determination of a pattern by which the packets are receiving and enabling subsequent processing of RTP packets belonging to the same sequence.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Nisani et al. (US 20050033840A1)
- Zalitzky et al. (US 20040037317A1)
- Bunn et al. (US 20020106029A1)
- Derks et al. (US006925092B1)
- Brandt et al. (US006801530B1)

- Putzolu (US006584509B2)
- Yeom (US006456967B1)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS
12-9-2005



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600